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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,345	12/27/2000	Masato Shimakawa	450100-02918	5389

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EXAMINER	
WOZNIAK, JAMES S	

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/749,345	SHIMAKAWA ET AL.
	Examiner	Art Unit
	James S. Wozniak	2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)[X] Responsive to communication(s) filed on *17 January 2006*.

2a)[ ] This action is **FINAL**. 2b)[X] This action is non-final.

3)[ ] Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)[X] Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)[ ] Claim(s) _____ is/are allowed.

6)[X] Claim(s) *1-14* is/are rejected.

7)[ ] Claim(s) _____ is/are objected to.

8)[ ] Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)[ ] The specification is objected to by the Examiner.

10)[X] The drawing(s) filed on *27 December 2000* is/are: a)[X] accepted or b)[ ] objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)[ ] The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)[X] Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)[X] All b)[ ] Some * c)[ ] None of:

1.[X] Certified copies of the priority documents have been received.

2.[ ] Certified copies of the priority documents have been received in Application No. _____.

3.[ ] Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) [X] Notice of References Cited (PTO-892)

2) [ ] Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) [ ] Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) [ ] Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) [ ] Notice of Informal Patent Application (PTO-152)

6) [ ] Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the office action from 10/14/2005, the applicant has submitted a request for continued examination, filed 1/17/2006, amending claims 1, 10, and 11, while arguing to traverse the art rejection based on the amended claim limitations *(Amendment, Pages 9-11)*. The applicant's arguments have been fully considered but are moot with respect to the new grounds of rejection in view of Kamiya et al (U.S. Patent: 6,175,772) in view of Edatsune (U.S. Patent: 5,802,488).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 3-7, and 9-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al (U.S. Patent: 6,175,772) in view of Edatsune (U.S. Patent: 5,802,488).

With respect to **Claims 1 and 10**, Kamiya discloses:

Behavior-state changing means, responsive to a behavior event, for changing a behavior state according to a behavior model *(behavior decision means, Col. 4, Lines 39-46; Col. 9, Line 26- Col. 10, Line 61)*;

Emotion-state changing means for changing an emotion state according to an emotion model *(emotion generation, Col. 7, Line 33- Col. 8, Line 58)*;

Selecting means for selecting control information according to the behavior state and/or the emotion state *(robot behavior decision means utilizing current emotion/behavior, Col. 9, Line 26- Col. 10, Line 61)*; and

Synthesizing a voice signal based on an output from a behavior decision means *(Col. 10, Lines 25-43)*.

Although Kamiya does teach a means for speech synthesis, Kamiya does not specifically disclose that synthesized speech is derived from substitutable generated text, wherein the text may be substituted with a plurality of words from substitute dictionaries in accordance with personality information and a plurality of determining factors. Edatsune, however, recites:

Text generating means for generating text in response to a behavior event *(content data generation in response to a user speech input, Col. 11, Lines 47-59; Fig. 2B, Element 4)*;

Substituting means, having a number of word substitute dictionaries, for substituting a word or words included in the text with a word or words from the number of word substitute dictionaries in accordance with pre-programmed personality information *(content vocabulary for particular levels used to substitute responses over time to provide personality with respect to an interactive item's maturity, Col. 11, Line 7- Col. 12, Line 56, Fig. 2B)*;

Wherein the pre-programmed personality information includes a plurality of factors that determine which of a plurality of substitute dictionaries is used by the substituting means *(selecting a content level vocabulary based on a time and a recognition number, Col. 11, Lines 8-32)*; and

Wherein the voice produced by the speech synthesizing apparatus is a function of the speech synthesizing information and pre-programmed personality information *(speech synthesis data, Col. 10, Lines 44-67; and maturity-related personality data, Col. 12, Lines 13-56).*

Kamiya and Edatsune are analogous art because they are from a similar field of endeavor in user-interactive objects utilizing speech synthesis. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Kamiya with the speech synthesis means utilizing maturity personality data as taught by Edatsune in order to enable an interactive item to appear more life-like *(Edatsune, Col. 12, Lines 49-56)*.

With respect to **Claim 3**, Kamiya further recites:

The selecting means selects the control information also according to the result of detection achieved by a detecting means for detecting an external condition *(voice and tactile command inputs, Col. 5, Line 5- Col. 6-, Line 12; Col. 9, Line 26- Col. 10, Line 61)*.

With respect to **Claim 4**, Kamiya further recites:

Wherein the selecting means selects the control information also according to the individual information held by the holding means *(learning user preferences and habits, Col. 6, Lines 13-40)*.

With respect to **Claim 5**, Edatsune additionally discloses:

Wherein the selecting means selects the control information also according to the elapsed time counted by the counting means *(clock for determining an elapsed time, Col. 10, Line 44-Col. 11, Line 32; Fig. 3A, Element 3)*.

With respect to **Claim 6**, Kamiya further recites:

The selecting means selects the control information also according to the accumulated number of times the behavior state changing means changes behavior or the emotion state changing means changes emotion *(accumulating a behavior change response in a neural network to determine future behavior, Col. 6, Lines 14-40; Col. 9, Lines 26-44)*.

With respect to **Claim 7**, Edatsune additionally discloses:

The personality information is included in the control information selected by the selecting means *(maturity/age related information used to control a response to a user, Col. 12, Lines 13-56)*.

With respect to **Claim 9**, Kamiya further shows:

The speech synthesizing apparatus is a robot (Fig. 1).

Claim 11 contains subject matter similar to Claims 1 and 10, and thus, is rejected for the same reasons. Also, Kamiya recites a robot object that produces synthesized speech in response to external stimuli *(Col. 2, Lines 12-35; Col. 4, Lines 39-46)* that would require an inherent computer memory medium, similar to that utilized to store emotion models *(Col. 7, Lines 33-46)*, to store the steps necessary to accomplish speech synthesis.

With respect to **Claims 12-14**, Edatsune teaches personality information indicative of an interactive object's age *(Col. 12, Lines 13-56)*.

4. **Claims 2 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al *(U.S. Patent: 6,175,772)* in view of Edatsune *(U.S. Patent: 5,802,488)*, and further in view of Holm et al *(U.S. Patent: 6,260,016)*.

With respect to **Claim 2**, Kamiya in view of Edatsune teaches the speech synthesis apparatus utilizing speech synthesis data and maturity/age related personality data, as applied to Claim 1. Kamiya in view of Edatsune does not specifically suggest that speech synthesis data includes parameters such as pitch or utterance speed, however Holm teaches the use of such parameters in speech synthesis *(pitch parameter, Col. 9, Lines 3-16; and speech rate, Col. 8, Line 49)*.

Kamiya, Edatsune, and Holm are analogous art because they are from a similar field of endeavor in speech synthesis systems. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Kamiya in view of Edatsune with the speech synthesis parameters taught by Holm in order to ensure a natural prosody for synthesized speech (Holm, Col. 1, Lines 5-9).

With respect to **Claim 8**, Holm further teaches converting the style of a text input according to a prosody *(Col. 3, Lines 29-60)*.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Noguchi *(U.S. Patent: 5,983,184)*- teaches a speech synthesizer utilizing an accent dictionary.

Surace et al *(U.S. Patent: 6,144,938)*- teaches a voice user interface having a several personalities, wherein each personality has a corresponding recognition grammar.

Kleindienst et al *(U.S. Patent: 6,598,020)*- teaches different voice personalities that use different grammars for communicating with a user.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
3/1/2006

DAVID HUDSPETH
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